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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,601	03/17/2004	Taketoshi Hibi	2257-0245P	4188

2292 7590 08/09/2005

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EXAMINER
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CRUZ, MAGDA

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

ATC

<b>Office Action Summary</b>	Application No. 10/801,601	Applicant(s) HIBI ET AL.	
	Examiner Magda Cruz	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-11, 13, 14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7, 12 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/17/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 6 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yata et al.

Yata et al. (US Patent Number 4,708,435) discloses:

- Regarding claim 1, a diffuser panel for a rear projection screen (column 3, lines 27-28) for diffusing light, comprising first reflecting elements (Figure 6, element 1) for condensing incident light to substantially one spot (Figure 6, element 1C) or one line, periodically provided in at least one direction between a light incident surface (i.e. right side of element 1, Figure 6) and a light exiting surface (i.e. left side of element 1, Figure 6).
- Regarding claim 3, a diffuser panel including first reflecting elements (Figure 6, element 1) for condensing light to substantially one spot (Figure 6, element 1C) or one line, periodically provided in at least one direction between a light incident surface (i.e. right side of element 1, Figure 6) and a light exiting surface (i.e. left side of element 1, Figure 6), wherein said first reflecting elements (Figure 6, element 1) are a plurality of types of

reflection regions having different directivities of diffusion provided periodically (column 3, lines 31-37).

- Regarding claim 6, reflecting elements (Figure 6, element 1) are each partly formed in a quadric surface (i.e. curved surface, element 1B, Figure 6) having a focal point (i.e. focal length on the screen; column 6, lines 10-13).
- Regarding claim 16, at least one of said light incident surface (Figure 6, element 1A) and said light exiting surface (i.e. left side of element 1, Figure 6) has a flat region.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 8-10, 13-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yata et al. in view of Knox et al.

Yata et al. (US Patent Number 4,708,435) teaches the salient features of the present invention as explained above (see Rejection under §102(b)), except (regarding claim 2) plurality of diffuser panels overlap one another with directivities of diffusion different from one another; (regarding claim 8) a light absorbing member in a region through which no projected light ray passes; (regarding claim 9) light absorbing member

is provided on said light exiting surface; (regarding claim 10) a transparent portion mixed with a light diffusion material; (regarding claims 13 and 18) a reflection reducing member on at least one of said light incident surface and said light exiting surface; (regarding claim 14) a neutral density colored layer; (regarding claim 17) the light incident surface of said diffuser panel for a rear projection screen is formed flat, and a Fresnel lens is provided on said light incident surface.

Knox et al. (US Patent Number 6,788,460 B2) discloses a plurality of diffuser panels (Figure 2, elements 31 and 75) overlap one another with directivities of diffusion different from one another (Figure 2, elements 35 and 92); a light absorbing member (Figure 2, element 86; column 5, lines 14-18) in a region through which no projected light ray passes (i.e. light only passes through opening elements 97-91, Figure 2); light absorbing member (Figure 2, element 86) is provided on said light exiting surface (i.e. right side of element 75, Figure 2); a transparent portion mixed with a light diffusion material (i.e. projecting members; column 4, lines 4-9); a reflection reducing member (Figure 2, element 77) on at least one of said light incident surface and said light exiting surface (i.e. right side of element 75, Figure 2); a neutral density colored layer (column 5, lines 7-11); the light incident surface of said diffuser panel (Figure 2, element 33) for a rear projection screen is formed flat (i.e. first surface 33), and a Fresnel lens is provided on said light incident surface (column 3, lines 57-63).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the diffuser panels, light absorbing member and reflection reducing member disclosed by Knox et al. in substitution of the diffuser panel from Yata

et al.'s invention, for the purpose of improving a screen apparatus that includes a double layered screen construction (Knox et al., column 1, lines 13-15) and improving projection screen apparatus such as rear projection television (Knox et al., column 3, lines 43-45).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yata et al. in view of Inoue et al.

Yata et al. (US Patent Number 4,708,435) teaches the salient features of the present invention as explained above (see Rejection under §102(b)), except reflecting elements formed of a metal film.

Inoue et al. (US Patent Number 4,468,092) discloses reflecting elements (Figure 8B, element 4) formed of a metal film (column 4, lines 62-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the reflecting elements disclosed by Inoue et al. in substitution of the reflecting elements from Yata et al.'s invention, for the purpose of providing a rear projection screen having a large angular field of vision (Inoue et al., column 2, lines 16-17).

#### ***Allowable Subject Matter***

6. Claims 4-5, 7, 12 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

- a. Regarding claim 4, the prior art or record neither shows nor suggests first reflecting elements periodically provided at an interval smaller than a pixel size in the direction that said first reflecting elements;
- b. Regarding claim 5, the prior art or record neither shows nor suggests second reflecting elements for bending principal axes of light rays reflected from said first reflecting elements to the direction of the normal to said light exiting surface.

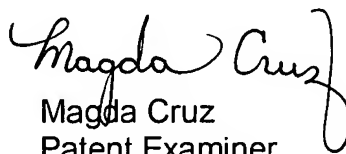
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Magda Cruz  
Patent Examiner  
Art Unit 2851

August 6, 2005